

Phyllostegia mannii. Critical habitat is designated for these multi-island species elsewhere on Molokai, and proposed on other islands within their historical range to reach the recovery goal of 8 to 10 populations for each species (see “Descriptions of Critical Habitat Units” section).

Kamakou Preserve provides unoccupied habitat for four populations of 300 mature, reproducing individuals of the short-lived perennial *Hedyotis mannii*. Critical habitat is proposed for this multi-island species on Maui and recovery habitat is provided for this species on Lanai under terms of a Memorandum of Agreement with the private landowner (68 FR 1220) within its historical range to reach the recovery goal of 8 to 10 populations. This preserve provides unoccupied habitat for three populations of 300 mature, reproducing individuals of the short-lived perennial *Phyllostegia mollis*. Critical habitat is proposed for this multi-island species on other islands within its historical range to reach the recovery goal of 8 to 10 populations. This preserve provides unoccupied habitat for two populations of 300 mature, reproducing individuals of the short-lived perennial *Platanthera holochila*. Critical habitat is also being designated for this multi-island species on Kauai and is proposed on other islands within its historical range to reach the recovery goal of 8 to 10 populations. Lastly, this preserve provides unoccupied habitat for one population of 300 mature, reproducing individuals of the short-lived perennial *Vigna o-wahuensis*. Critical habitat is proposed for this multi-island species on other islands within its historical range to reach the recovery goal of 8 to 10 populations.

Moomomi Preserve

The primary management goals within Moomomi Preserve are to prevent degradation of natural communities by reducing feral ungulate damage, and improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of non-native plants (TNCH 1999).

Specific management actions to address feral ungulate impacts include the construction of a perimeter fence to keep out livestock and an agreement with the neighboring landowner, Molokai Ranch, in which they will remove livestock within 48 hours of ingress. Analysis of monitoring data collected within the axis deer enclosure will guide future management strategies (TNCH 1999).

As with Kamakou Preserve, the non-native plant control program within Moomomi Preserve focuses on habitat-modifying non-native plants and prioritizes them according to the degree of threat to native ecosystems. A weed priority list has been compiled for the preserve, and control and monitoring of the highest priority species are on-going. Weeds are controlled manually, chemically, or a through a combination of both. Preventive measures (prevention protocol) are required by all who enter the preserve. This protocol includes such things as brushing footwear before entering the preserve to remove seeds of non-native plants. In addition, the staff are actively promoting awareness of aggressive non-native plants in Hawaii and their impacts to native ecosystems in the local communities on Molokai through public education at schools, fairs, and displays at the airport (TNCH 1999).

Natural resource monitoring and research address the need to track the biological and physical resources of the preserve and evaluate changes in these resources to guide management programs. Vegetation is monitored throughout the preserve to document long-term ecological changes; rare plant species are monitored to assess population status. In addition, the preserve staff provide logistical support to scientists and others who are conducting research within the preserve (TNCH 1999).

Moomomi Preserve provides habitat for one population of 300 mature, reproducing individuals of the short-lived perennial *Tetramolopium rockii*. Critical habitat is designated for this island-endemic species elsewhere on Molokai within its historical range (see “Descriptions of Critical Habitat Units” section). This preserve provides habitat for one population of 500 mature, reproducing individuals of the annual *Centaurium sebaeoides*. Critical habitat is designated for this species elsewhere on Molokai, on Kauai, and is proposed on other islands within its historical range to reach the recovery goal of 8 to 10 populations (see “Descriptions of Critical Habitat Units” section).

Pelekunu Preserve

The primary management goals within Pelekunu Preserve are to prevent degradation of native forest by reducing feral ungulate damage; and improve or maintain the integrity of native ecosystems in selected areas of the preserve by reducing the effects of non-native plants.

Specific management actions to address feral ungulate impacts include staff hunting; implementation of

organized hunting through the Molokai Hunters Working Group; and quarterly transect and aerial monitoring of ungulate activity. By monitoring ungulate activity within the preserve, the staff are able to direct hunters to problem areas, thereby increasing hunting success. If increased hunting pressure does not reduce feral ungulate activity in the preserve, the preserve staff will work with the hunting group to identify and implement alternative methods (TNCH 1999).

As with the other two preserves on Molokai, the non-native plant control program within Pelekunu Preserve focuses on habitat-modifying non-native plants and prioritizes them according to the degree of threat to native ecosystems. A weed priority list has been compiled for the preserve, and control and monitoring of the highest priority species are ongoing. Weeds are controlled manually, chemically, or through a combination of both.

Preventive measures (prevention protocol) are required by all who enter the preserve. This protocol includes such things as brushing footwear before entering the preserve to remove seeds of non-native plants. In addition, the staff are actively promoting awareness of aggressive non-native plants in Hawaii and their impacts to native ecosystems in the local communities on Molokai through public education at schools, fairs, and displays at the airport.

Natural resource monitoring and research address the need to track the biological and physical resources of the preserve and evaluate changes in these resources to guide management programs. Vegetation is monitored in the preserve to document long-term ecological changes; and rare plant species are monitored to assess population status. In addition, the preserve staff provide logistical support to scientists and others who are conducting research within the preserve.

Pelekunu Preserve provides habitat for two populations of 300 mature, reproducing individuals of the short-lived perennial *Bidens wiebkei*; one population of 300 mature, reproducing individuals of the short-lived perennial *Canavalia molokaiensis*; and four populations of 300 mature, reproducing individuals of the short-lived perennial *Stenogyne bifida*. Critical habitat is designated for these three island-endemic species elsewhere on Molokai within their historical ranges to reach the recovery goal of 8 to 10 populations for each species (see “Descriptions of Critical Habitat Units” section).

In sum, the Service believes that a critical habitat designation for listed